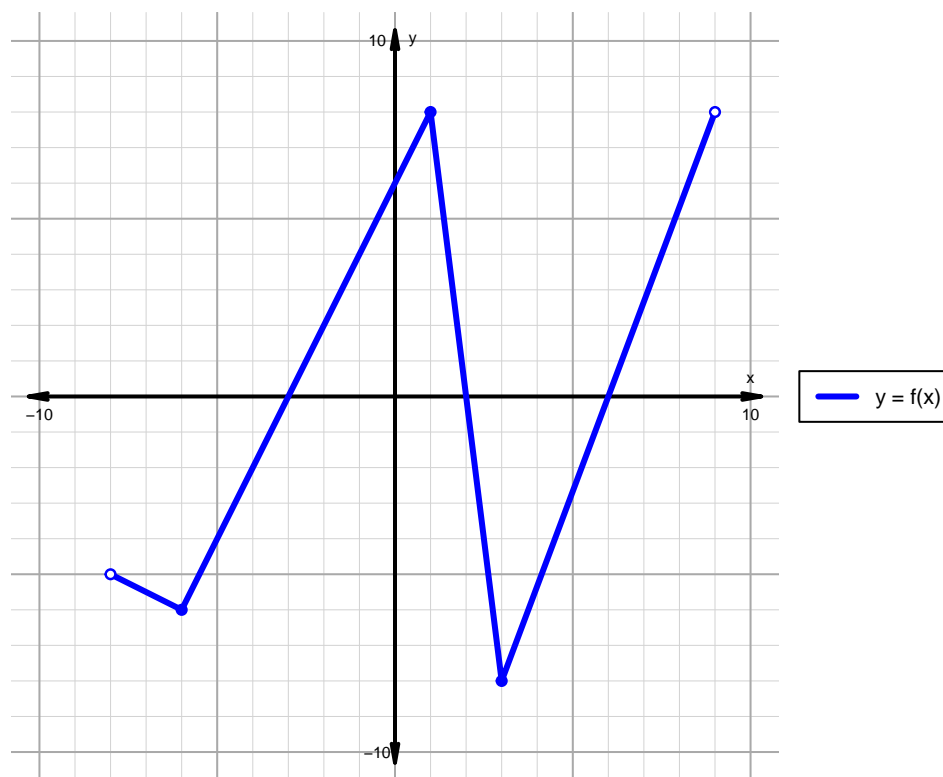


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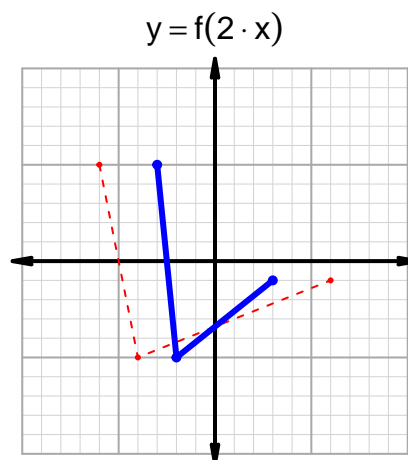
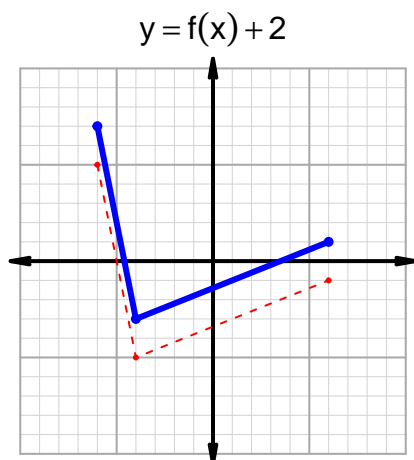
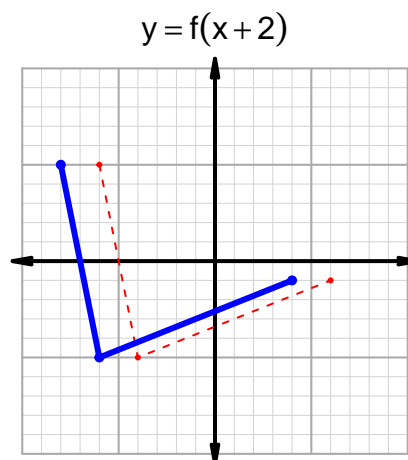
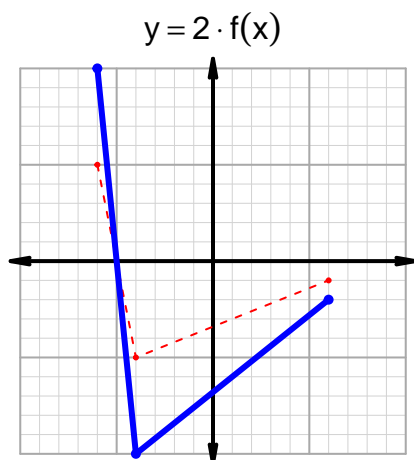
Intervals, Transformations, and Slope Solution (version 178)1. The function f is graphed below.

Indicate the following intervals using interval notation. Remember, you can use \cup between two intervals to indicate the union. Except for range, all intervals will indicate x values; this is standard.

Feature	Where
Positive	$(-3, 2) \cup (6, 9)$
Negative	$(-8, -3) \cup (2, 6)$
Increasing	$(-6, 1) \cup (3, 9)$
Decreasing	$(-8, -6) \cup (1, 3)$
Domain	$(-8, 9)$
Range	$(-8, 8)$

Intervals, Transformations, and Slope Solution (version 178)

2. In the four graphs below, $y = f(x)$ is graphed as a dotted line. With a solid line, please graph the transformations indicated by the equations below.



3. Let function g be defined by the table below. Use the formula $\frac{g(x_2) - g(x_1)}{x_2 - x_1}$ to find the average rate of change between $x_1 = 31$ and $x_2 = 43$. Express your answer as a reduced fraction.

x	$g(x)$
31	78
43	50
50	31
78	43

$$\frac{g(43) - g(31)}{43 - 31} = \frac{50 - 78}{43 - 31} = \frac{-28}{12}$$

The greatest common factor of -28 and 12 is 4. Divide numerator and denominator by the greatest common factor.

$$\text{AROC} = \frac{-7}{3}$$